# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

## April 12, 2012

TO:

Internal File

THRU:

Steve Christensen, Permit Supervisor

FROM:

Amanda Daniels, Environmental Scientist

RE:

Changes in Water Monitoring, Canyon Fuel Company, LLC, Dugout Canyon

Mine, #C0070039 and Task ID #4053

# **SUMMARY:**

On October 25, 2011, the Division of Oil, Gas and Mining (the Division) received an application from Canyon Fuel Company, LLC (the Permittee) to revise the Dugout Canyon Mine mining and reclamation plan.

On December 20, 2011, the Division responded to the Permittee listing various deficiencies under Task ID # 3946. On March 15, 2012, the Permittee responded to these deficiencies. The Permittee proposes to eliminate a number of water monitoring points, but has removed groundwater monitoring well GW-11-2 from this list.

The amendment should not be approved at this time. The following deficiency must be addressed prior to issuance of final approval:

**R645-301-731.210** and **-220:** The Permittee must provide a commitment that if mining activity is to be expanded towards the water monitoring sites that are designated for elimination, water monitoring activity at those sites would be reinitiated no less than one year prior.

#### **TECHNICAL MEMO**

# **TECHNICAL ANALYSIS:**

# **OPERATION PLAN**

### HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

#### **Analysis:**

# **Groundwater Monitoring**

The application proposes to drop springs monitoring sites 321, 322, 200, 227, and 259.

Springs 321 and 322 are outside the Dugout permit area. The justification for eliminating these springs from the groundwater monitoring program is that they are now outside of the area of influence for future mining.

The justification provided in the application for eliminating springs 200, 227, and 259 from the groundwater monitoring plan is that they have produced measurable flows very few times over the last 13 years of monitoring.

Based on the deficiencies listed in the December 20, 2011 letter from the Division the Permittee has indicated which sections will be undermined from 2012 through 2016 under their current mining plans. Springs 200, 227, 259, and 322 are not within any of the same sections where mining is planned for the next five years. The Permittee has stated that spring 321 is on the extreme eastern edge of Section 18 and mining *is* planned on the extreme western edge of this section in the next five years.

Additional historical information was submitted regarding mining near these spring sites. There has never been mining near springs 321, 322, and 200. Mining was last near springs 227 and 259 in 2007 and 2008 respectively.

The Permittee gives information that from subsidence monitoring near springs 227 and 259, resulted in a subsidence of -0.64 feet in Panel Gil 5 and -0.86 feet in Panel Gil 6. These panels are now considered stable and additional subsidence information can be found in the 2006-2010 annual reports.

#### **TECHNICAL MEMO**

The Permittee has stated in the revised MRP that should mining occur that would give the potential for subsidence, monitoring at springs 321, 322, and 200 will be reinstated no less than one year prior to subsidence. Based on the Division's last deficiency letter, the Permittee must include a statement in the MRP that should *any* mining near the proposed monitoring points to be eliminated; monitoring will be reinstated no less than one year prior to monitoring activity.

In response to the deficiency regarding a late spring/early summer 2012 spring/seep survey, the Permittee has cited numerous spring/seep surveys that have taken place in the past. These surveys are found in Appendix 7-1 of the approved MRP. The Permittee has further stated that there are no water rights associated with seeps or springs in the sections to be mined in 2012 through 2016. The Permittee has reviewed the Utah Division of Water Rights database which shows that in the areas associated with the proposed monitoring elimination, there is one groundwater right held by Canyon Fuel Company.

# **Surface Water Monitoring**

The application proposes to drop stream monitoring at site 323. The Permittee has provided information that site 323 in not in the sections to be undermined from 2012 to 2016 under the current mining plan. While giving a more detailed history of mining locations it is stated that mining has never occurred near location 323. The Permittee has reviewed the Utah Division of Water Rights database which shows that in the areas associated with the proposed monitoring elimination there are three surface locations rights (Canyon Fuel Company) and nine are point to point rights (1-Canyon Fuel Company, 3-BLM, 5-Thayn). The Permittee stated that sufficient information regarding spring/seep surveys have been provided to the Division to justify the elimination of these monitoring locations.

#### **Findings:**

The application does not meet the water monitoring requirements of the State of Utah R645-Coal Mining Rules. The following deficiencies must be addressed prior to the Division approval of the application:

R645-301-731.210 and -220: The Permittee must provide a commitment that if mining activity is to be expanded towards the water monitoring sites that are designated for elimination, water monitoring activity at those sites would be reinitiated no less than one year prior.

#### **RECOMMENDATIONS:**

The application should not be approved at this time.

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